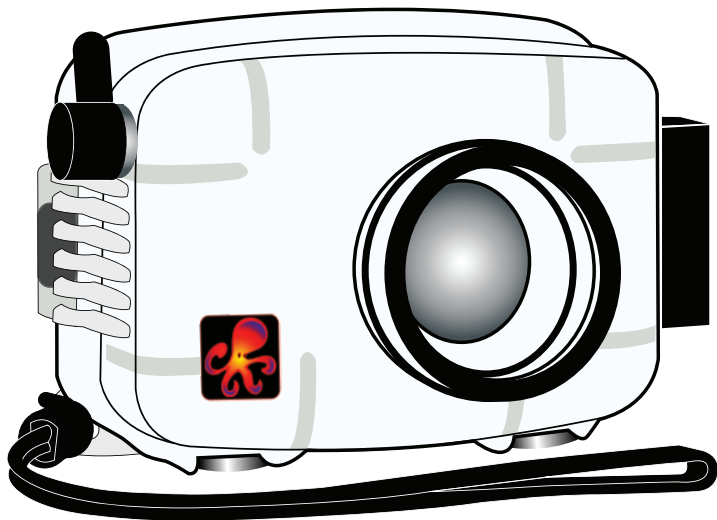


Ikelite Digital Housing

instruction manual
for ULTRACompact Digital DC-100 Housing



Congratulations on your purchase of an Ikelite Digital Camera Housing. Ikelite has over 45 years of experience in the underwater photographic and lighting market. Our products are designed and built in the USA by Ikelite for both the professional and amateur photographer.

The clear housing permits instant visual inspection of the camera and all sealing surfaces as well as complete monitoring of controls and camera LCD screens.

Ikelite Digital Housings are slightly negative in salt water for stability. This housing has been water pressure tested at the factory to 200' (60m).

Please Read

We suggest that you read this instruction booklet thoroughly before use. If you are new to underwater photography be sure to read the General and Photo Tips.

We also suggest that you read the camera manual thoroughly to have a full understanding of where each camera control is located and what function each control provides.

Please Read If Using an EV-Controller

The EV-Controller used with Ikelite DS Substrobes has two user settings. One setting is for strobe selection, the other is for pre-flash or non pre-flash. **If your camera model uses pre-flash**, the EV-Controller should be set to the pre-flash position.

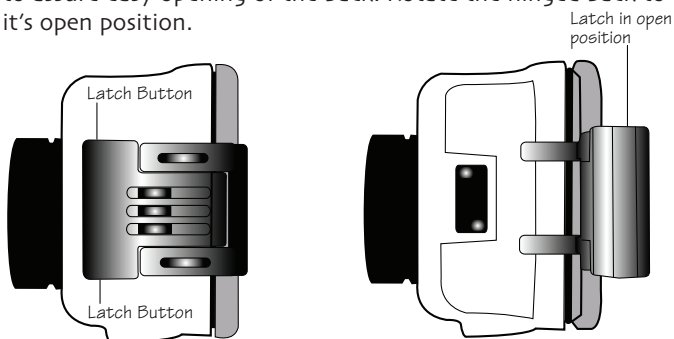
Camera Setup (for most point and shoot digitals)

1. Set ISO to lowest setting available.
2. Set camera to least automated mode.
3. Enable macro setting if pictures are over-exposed. Also, zoom in and back away from the subject.
4. Set aperture to smallest available setting (highest numerical setting).
5. Make sure flash is forced "on".
6. See "supplemental instructions" for any additional camera settings specific to your camera.

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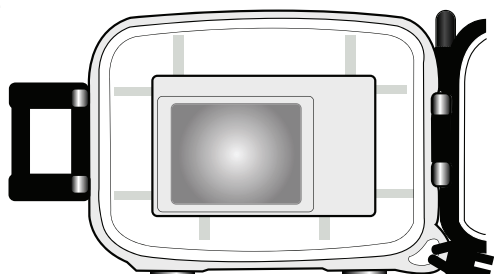
Opening the Housing

1. Depress opposing latch buttons simultaneously to open the housing. Once the latch is unlocked, rotate the latch handle away from the housing until it stops. This motion will also break the housing o-ring seal and open the housing back slightly. **NOTE:** Latch must be rotated to the fully open position to assure easy opening of the back. Rotate the hinged back to its open position.



Installing the Camera

1. Place the camera face down into the front housing ribs as shown.



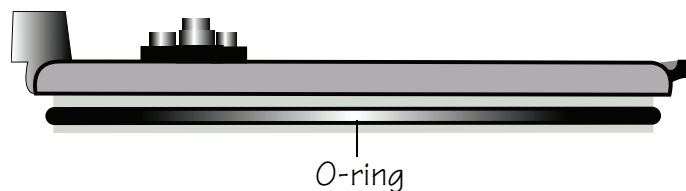
Camera in Housing Front

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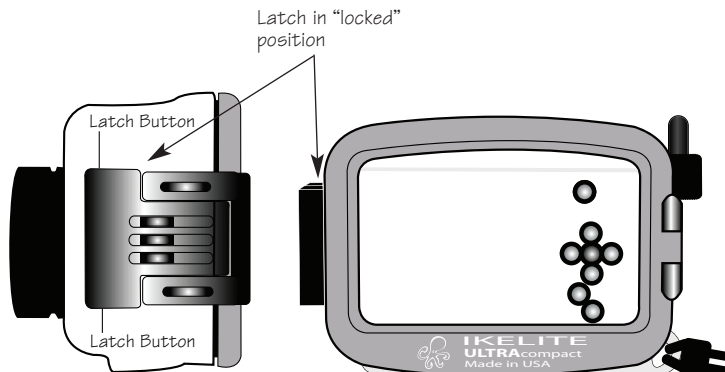
Closing the Housing

1. Place housing face down in your lap or on a flat surface.
2. Check to see that there is an o-ring on the housing back and that it is clean, lightly lubed, and in its proper location.

Housing Back - Top View



3. Rotate the hinged back onto the housing front. Close the latch and make sure it locks. Latch will "click" into its locked position. Latch buttons will NOT be depressed when latch is properly locked.



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Check Main O-ring Seal and Controls

Once the housing has been closed, look at the main housing o-ring seal from the "top view" as seen on page 4. Rotate the housing 360 degrees and note the o-ring seal by looking through the clear housing. A good seal should appear as a solid black line.

Make sure the housing controls line up with the camera controls.

Turn Camera On

Turn the camera on and operate each of the housing controls to get a feel for using the camera in the housing. Take a few pictures above water with the camera in the housing.

Lubricants

1. Ikelite provides silicone lubricant with the housing. We recommend you use only Ikelite lubricant on Ikelite products. Other brands may cause the o-ring to swell and not seal properly.
2. Use only enough lubricant to lightly cover the main housing o-ring. Wipe off any excess lubricant with a clean cloth. Lubricant is not a sealant, it is used to reduce friction. Excessive lubricant can collect sand and dirt which may interfere with proper sealing.

CAUTION

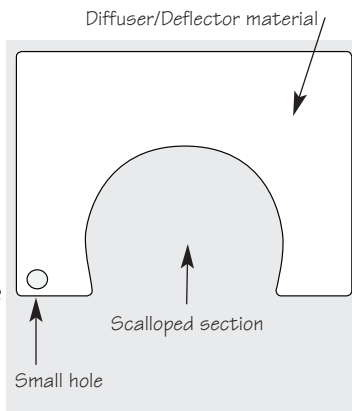
Never use spray lubricants as the propellant ingredient can cause the plastic housing to crack.

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Diffuser and Deflector cont.

A diffuser and deflector are included with the housing. The diffuser is white transparent plastic. The deflector is also white but is not transparent.

To install the diffuser or deflector, simply push the scalloped section into the port groove until it stops. The white plastic should be placed in front of the camera flash. Note the small hole. To avoid losing the diffuser/deflector, you can attach a fishing line or string to this hole.



Diffuser

The diffuser should be installed when using the camera's built in flash. When shooting with the camera's built-in flash at approximately 2 feet (0.6 m) or less, the lens port on the housing may block a portion of the light from the camera's built-in flash, creating a shadow in the lower left area of the photo. If this occurs, zoom the lens slightly to eliminate the shadow. *(You can test this above water)*

Deflector

The deflector should be installed when using an external strobe such as the AF35; or the DS51, DS125, or DS160 Substrobe with an EV Controller. The deflector will redirect the camera's flash to the EV Controller which controls the external strobe's output.

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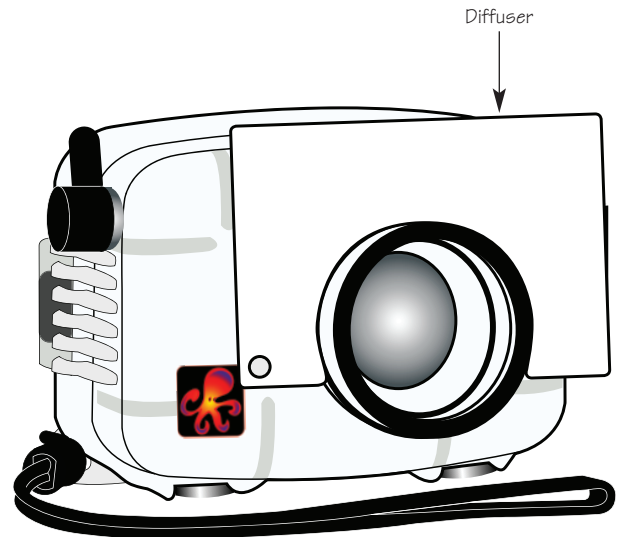
Using Flash

Using the Camera's Built-in Flash.

If you do not have an external flash, the camera's built-in flash can be used. See Diffuser/Deflector installation below.

NOTE: The camera's built-in flash cannot be used with optional Wide-Angle or Accessory lenses.

Diffuser and Deflector Installation



Housing shown with Diffuser installed.

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Lens Port

Treat the glass in the lens port as a camera lens. After use, rinse and gently dry the outside lens port to avoid water spotting. To clean, use a mild soap solution or lens cleaner. Do not rinse the inside port glass. *Do not use alcohol or window cleaner on the Lens Port.*

Accessory Lens Information

Please refer to the "supplemental instructions" manual for Accessory Lens information.

Optional Accessories

Main Housing O-ring #0132.45

O-rings last for several years if properly maintained (See maintenance). Always carry a spare in case your housing o-ring becomes damaged or lost.

Ikelite Lube #5020 (4 - 1cc tubes)

For light lubrication of the main housing o-ring.

UR/Pro Filter (Blue Water) #6441.32

The UR/Pro underwater color correcting filter is designed to restore some of the warm colors filtered out by the water. For available light use only; not recommended for use with flash.

Green Water Filter #6441.72

Enhances contrast and alters the color of green water to give your subject a rich, natural tone. For available light use only. Not recommended for use with flash.

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Optional Accessories Continued

Ikelite Digital Strobe Packages

For the best photo results in all shooting conditions, Ikelite highly recommends that you use an external digital strobe. Ikelite strobes are much more powerful, recycle more quickly, and eliminate backscatter created by the camera's built-in flash. The following strobe packages come complete with the strobe, arm, and slave unit (to sense the camera flash):

1. #4035 *AutoFlash AF35* designed specifically for the Ikelite Compact and ULTRAccompact Digital housings.
2. #3944.54 Substrobe DS-51 Deluxe Package
3. #3944.77 Substrobe DS-125 Package
4. #3944.91 Substrobe DS-160 Package

The addition of an external strobe to your housing will help eliminate particles in the water that are "lit-up" by the camera flash, commonly called backscatter. A second strobe will eliminate shadows and add more depth to your subjects.

Tray with Release Handle #9523.31

Tray and Release Handle is required to mount external Digital Substrobes DS-51, DS-125, and DS-160.



Complete information regarding strobe packages and optional accessories available at www.ikelite.com

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Maintenance

The Ikelite Digital Housing should be given the same care and attention as your other photographic equipment. In addition to normal maintenance, we recommend that the housing be returned to Ikelite periodically to be checked and pressure tested.

1. **Do Not** leave the camera and housing in direct sunlight for prolonged periods. Heat may damage the camera.
2. **Do Not** ship the camera in the housing.
3. Keep the back o-ring clean and lightly lubricated. Only apply enough lubricant to make the o-ring feel slick. **Do Not stretch the o-ring.** This light coating of lubricant will help to keep the o-ring from drying out, and will also reduce friction when opening and closing the housing. Keep the area where the o-ring fits and the sealing surface of the housing clean.
4. Rinse the housing exterior thoroughly in fresh water after each salt water use. Dry with a soft cloth. Dry lens port to eliminate water spotting.

After several uses in salt water, soak the housing exterior in a mild soap solution, then rinse and dry before storage. When storing the housing, remove the back o-ring, lightly lubricate, and place in a plastic bag. Place the plastic bag with o-ring inside the housing for safe keeping.

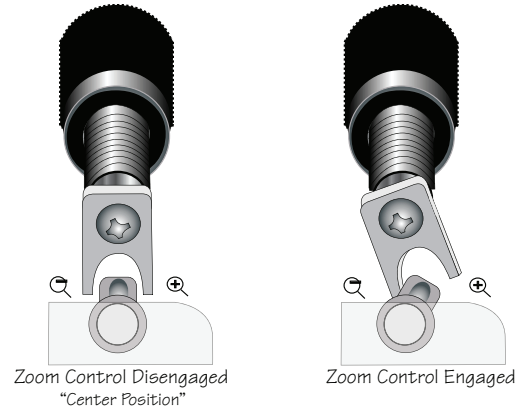
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Important Zoom Control Info (not on all housings)

If your new Ikelite ULTRAccompact Digital Housing contains a "lever type" zoom control as pictured below, please read the following NOTE.

Zoom Control (lever type only)

NOTE: After you have used the housing's zoom control it must be returned to the center position to disengage. If the housing zoom control is pushing the zoom lever in either direction you may not be able to take a picture or access any other function. This is because the camera is receiving a signal from the engaged zoom control.



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Control Maintenance

Ikelite controls are designed to provide years of reliable service with minimal maintenance.

1. Push button controls require no maintenance other than rinsing in fresh water after saltwater use. If a push button control becomes difficult to push, or if it sticks when depressed, soak the housing in luke warm fresh water. After a few minutes operate the push button. If this does not correct the problem, return the housing to Ikelite for routine maintenance.
2. If a housing control shaft becomes "sticky" and hard to operate, return the housing to Ikelite for routine maintenance.

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General Tips

1. Due to the power required to operate the camera, flash, and LCD screen, it is a good idea to start each dive with a fresh set of batteries.
2. Some cameras reset their flash to AUTO when the camera is turned on. If you prefer another setting be sure to select it.
3. As soon as you enter the water, take a moment and check the housing to see that it is properly sealed.
4. Next, check to see if there are any bubbles on the face of the lens port. If there are, take your finger and remove them. If there are bubbles on the lens port they can produce soft focus spots in your photographs.
5. If you are shooting with the camera's built-in flash and the camera's lens is set to the widest angle, you may need to zoom the lens slightly or a shadow may appear in the lower left corner of close-up photographs. The lens port may block some of the light. Installing the flash diffuser will help to eliminate the shadow. *(You can test this above water)*
To shoot photographs closer than 2 feet (0.6m), you need to use an external strobe such as the AF35, DS51, DS125, or DS160. With an external strobe you can position it so nothing blocks the light path between the strobe and the subject.
6. **NOTE:** Fogging of the port glass may occur due to a variety of environmental factors. To prevent fogging issues, always assemble the housing in a cool, dry area, and keep the housing out of direct sunlight. If fogging persists, insert a fresh dessicant packet inside the housing before each day of diving (dessicant packages are not available from Ikelite, however most camera stores carry them).
7. Before placing your camera in the housing, it is a good idea to immerse the closed housing in a bucket or rinse tank to make sure it is watertight.

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Photo Tips Cont.

7. If your camera consistently over or underexposes the image when using daylight or flash, you may want to adjust your camera's exposure compensation settings (if offered on your model). Many cameras allow you to adjust both available light and flash exposure with an EV "Exposure Compensation" control in the camera's menu.
8. Many photographers transfer their images to the computer where they can fine tune the appearance of the image. Many of the image manipulation programs make you think you can magically correct any image taken and make a good picture. Note that if the image is overexposed, much of the color is missing. If the color is missing you cannot adjust it. If images are slightly underexposed, the color is there, and you can adjust exposure to some degree. So, if you error in exposure, it is better to have the image slightly underexposed rather than overexposed.

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Photo Tips

1. The number one rule in underwater photography is to eliminate as much water between the camera and subject as possible. Get as close as you can to the subject, then use the zoom if necessary. If you are using flash, subjects beyond 6 feet (1.8m) will not have much color regardless of strobe power.
2. The camera's built-in flash is very close to the camera lens. The flash can light up any suspended particles in the water and they can be recorded in your picture. This effect is called backscatter. To eliminate as much backscatter as possible, photograph close, photograph in clear water, and do not stir up the sand or silty bottom. If backscatter becomes a problem in the environment you are photographing, an external flash will help eliminate much of the backscatter.
3. Digital cameras have a slight lag time between when you press the shutter release button and the camera actually takes the picture. Hold the camera steady a second or two after pressing the shutter release button.
4. Do not shoot down on subjects as they will quite often blend into the background and be difficult to see in the photograph. Shoot subjects straight on or shoot up at a slight angle using the blue water as a contrasting background.
5. Underwater flash is used to restore the warmer colors filtered out by the water as well as to illuminate the subject. When photographing underwater, set the camera to use flash on every shot. If the camera's flash is set to AUTO and the sun is behind your subject, the camera may see enough light that it does not fire the flash. With the sun behind the subject, the subject is shaded (dark) and needs flash for a good exposure.
6. If over-exposure occurs, enable macro setting. If over-exposure continues, zoom in and back away from the subject.

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Ikelite Limited Warranty

All Ikelite products are warranted against any manufacturing defects for a period of one year from the date of purchase. Defective products should be returned prepaid to Ikelite. Ikelite will, at its discretion, repair or replace such products, and will return to customer prepaid. All other claims, of any nature, including but not limited to bulb failure are not covered. Except as mentioned above, no other warranty expressed or implied, applies to this Ikelite product.

Returning Products for Service

Ikelite is most interested in performing any service to assure that all products perform as intended. For repair or service, return the product to the address below with your name, address, phone number and a brief description of the problem. Evidence of purchase date must be provided to obtain warranty service. Normal service turnaround time is approximately 2-3 weeks.

Ikelite Underwater Systems
50 W 33rd Street
Indianapolis, IN 46208 USA

When returning products send "attn. Repair Dept."

317-923-4523

"general questions" e-mail: ikelite@ikelite.com
www.ikelite.com

ULTRACompact Digital-01-0708